Conclusions: This meta-analysis shows a modest but significant improvement in overall survival and local failures at the expense of a clearly increased severe esophagitis. Difficulties of increased treatment frequency and the continuous therapy over weekends make these strategies hard to adopt. On the other hand, due to the heterogeneity of altered fractionation modalities among the trials included, our results should be considered with caution and must be interpreted as an hypothesis generator.

TRIAL	n	HFRT type	Chemotherapy	Median OS	p
Ball	204	60 Gy in 3 wks	Weekly CBDCA	14.7 vs 15.4	ns
Saunders (CHART)	563	54 Gy in 12 consecutive days	No CT	16.5 vs 13	0.008
Bonner	99	60 Gy in 4 wks split	CDDP-VP16	11.6 vs 8.6	ns
ECOG 2597	112	57.6 Gy in 13 consecutive days	CBDCA-paclitaxel before RT	20.3 vs 14.9	ns
RTOG 8808	458	69.6 Gy in 6 wks	CDDP-VBL	12 vs 11.4	ns
Schild	234	60 Gy in 4 wks split	CDDP-VP16	14 vs 15	ns

PD5-2-8 **Clinical Data from Radiation Therapy, Thu, 12:30 - 14:15**

Predictors of survival for non-small-cell lung cancer patients with brain metastases treated with whole brain radiation therapy: pooled data from two randomized trials

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Background: A commonly used prognostic classification for brain metastasis patients is the Recursive Partitioning Analysis (RPA) classification developed with data from patients enrolled in RTOG trials from 1979 to 1993, which includes performance status, age, presence of extracranial metastasis and control of primary disease. The purpose of the current study was to determine if additional variables are significant independent predictors of survival in NSCLC patients with brain metastases.

Methods: In protocol 9801, 401 pts with brain metastases from any primary tumor were randomized to whole brain radiation therapy (WBRT, 30 Gy/10 fractions) or WBRT+MGd, 5 mg/kg qd x 10 days. The subgroup of 251 pts with NSCLC is included in this analysis. In protocol 0211, 554 pts with brain metastases from NSCLC were randomized to the same treatments. In both studies, eligibility included a KPS≥70, no liver metastases, and ≤1 site of extracranial metastasis. Univariate and stepwise multivariate Cox analyses were carried out using baseline clinical variables, laboratory values, neurocognitive test scores and survival follow-up data. Hazard ratios (HR) less than 1 favor the specified group.

Results: 805 patients, with a median age of 59 years, 44.6% female, 55.4% male, 53.3% adenocarcinoma, 19.3% NSCLC, not otherwise specified (NOS), 13.4% squamous cell, 10.6% large cell, 0.9% bronchoalveolar, 19.7% single brain metastasis, 80.3% multiple brain metastases, 47% extracranial metastases, and 84% presentation with neurologic deficits were randomized to WBRT (N=403) or WBRT+MGd (N=402). Time to neurologic progression in the WBRT+MGd group was 15.4 months, significantly longer than the 9.0 months for the WBRT alone group, p=0.016, HR=0.74 (95% CI 0.57-0.95). Median survival overall was 5.5 months, without statistically significant difference between treatment groups. Univariate predictors of survival were age, performance status, sex, histology, geographic region, low LDH, high LDH, low albumin, low Hgb, impaired memory (HVLT recall and recognition tests), verbal fluency (COWA test), executive function (Trailmaking test B), number of impaired neurocognitive tests, and smoking history. RPA class was borderline predictive in a univariate model (HR=1.27, P=0.056 for RPA class II vs I). In a stepwise model of all variables, age ≥65 (HR=1.34, P=0.005), KPS 90-100 (HR=0.70, P<0.001), multiple brain metastases (HR=1.27, P=0.035), presence of extracranial metastases (HR=1.21, P=0.036), male sex (HR=1.34, P=0.001), non-small-cell histology (NOS) (HR=1.37, P=0.005), Canada (HR=1.28, P=0.013), high baseline LDH (HR=1.39, P=0.023), low baseline LDH (HR=0.49, P=0.046), low baseline albumin (HR 1.64, P<0.001), current smoker (HR=1.29, P=0.009) were independent predictors of survival.

Conclusions: In two large randomized trials of patients with NSCLC and brain metastases, older age, poorer performance status, multiple brain metastases, presence of extracranial metastases, male sex, elevated LDH and albumin, current smoking status, and residence in Canada were significant predictors of shorter survival. These variables may provide more predictive power than RPA class for future randomized trials in NSCLC patients with brain metastases that have survival as an endpoint.

PD5-3-1 **NSCLC-Surgery, Thu, 12:30 - 14:15**

Role of intraoperative ultrasound for mediastinal staging in non-small cell lung cancer surgery

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Objectives: The extend of lymph node involvement in patients with non-small cell lung cancer (NSCLC) is the most important prognostic factor and influences multimodality treatment. We studied safety, accuracy and characteristics of intraoperative ultrasound (US) guided systematic mediastinal nodal dissection in patients with resected NSCLC.

Methods: Intraoperative hand held ultrasound probe was used in systematic mediastinal nodal dissection in 54 patients after radical surgery for NSCLC. Mapping of the lymph nodes by their number and station followed by histopathologic evaluation was performed. Data were compared with 58 patients who underwent lung resections and systematic mediastinal nodal dissection for NSCLC within the same time period at our institution. Statistical analysis was carried out.

Results: The surgical procedure used depended on the extent of the disease, as well as the cardiopulmonary reserve of the patients and was comparable in both groups. Operating time was prolonged for 12 (6 - 20) minutes in patients with US guided mediastinal nodal dissection, but number and stations of evaluated lymph nodes was significantly higher (p>0.001) at the same group of patients. Skip nodal metastases were found in 24% of patients without N1 nodal involvement. Standard staging system seemed to be improved in US guided mediastinal lymphadenectomy patients. Complications rate showed no difference between analyzed groups of patients.

Conclusion: Higher number and location of analyzed mediastinal nodal stations in patients with resected NSCLC using hand held ultrasound probe suggested to be of great oncology significance. Procedure